# Home Standby - 7kW - 10kW - 13kW

## Air-Cooled Gas Engine Generator Sets

### Continuous Standby Power Rating

**Model ASPBS1CCA007 - 7kW 60Hz**
**Model ASPBS1CCA010 - 10kW 60Hz**
**Model ASPBS1CCA013 - 13kW 60Hz**

**INCLUDES:**

- ***Automatic*** **Transfer Switch With Built-In Emergency Load Center**
- **Electronic Governor (10kW and 13kW)**
- **Pre-wired External Connection Box**
- **Flexible Fuel Line**
- **Composite Mounting Pad**
- **Pre-wired conduits**
- **Natural Gas or LP Gas Operation**
- **UL 2200 Listed to U.S. and Canadian Standards**

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## FEATURES

- ❒ **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of CARRIER'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose CARRIER with the confidence that these systems will provide superior performance.
- ❒ **TEST CRITERIA:**
  - ✓ **PROTOTYPE TESTED**
  - ✓ **SYSTEM TORSIONAL TESTED**
  - ✓ **NEMA MG1-22 EVALUATION**
  - ✓ **MOTOR STARTING ABILITY**
- ❒ **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
- ❒ **SINGLE SOURCE SERVICE RESPONSE** from Carrier's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a CARRIER SYSTEM.
- ❒ **CARRIER TRANSFER SWITCHES.** Long life and reliability are synonymous with CARRIER. One reason for this confidence is that the CARRIER product line includes its own transfer systems and controls for total system compatibility.

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# HOME STANDBY SPECIFICATIONS

**Home Standby - 7kW - 10kW - 13kW**

| | | |
|---|---|---|
| **ENGINE** | •Durable **OHVI** Design | Maximizes engine "breathing" for increased fuel efficiency. Cylinder walls run cooler, reducing oil consumption. Because heat is the primary cause of engine wear, the OHVI has a significantly longer life than competitive engines. |
| | •"Spiny-lok" cast iron cylinder walls | Rigid construction and added durability provide long engine life. |
| | •Electronic ignition, spark advance and compression release | These features combine to assure smooth, quick starting every time. |
| | •Full pressure lubrication system | Superior lubrication to all vital bearings means better performance, less maintenance and significantly longer engine life. |
| | •Low oil pressure shutdown system | Superior shutdown protection prevents catastrophic engine damage due to low oil. |
| | •High temperature shutdown | Prevents damage due to overheating. |
| **GENERATOR** | •Revolving field | Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator. |
| | •Skewed stator | Produces a smooth output waveform for compatibility with electronic equipment. |
| | •Displaced phase excitation | Maximizes motor starting capability. Provides more surge capability than brushless generator designs. |
| | •Automatic voltage regulation | Regulates the output voltage to ±2% prevents damaging voltage spikes. |
| | •UL 2200 Listed | For your safety |
| **TRANSFER SWITCH** | •Fully Automatic | Transfers your vital electrical loads to the energized source of power. |
| | •Remote Mounting | Mounts near your existing distribution panel for simple, low cost installation. |
| | •UL Listed | For your safety |
| **MICROPROCESSOR CONTROL** | •Manual/Auto/Off switch | Selects the operating mode. |
| | •Utility voltage sensing | Constantly monitors utility voltage, setpoints 60% dropout, 70% pick-up, of standard voltage. |
| | •Utility interrupt delay | Prevents nuisance start-ups of the engine, set point approximately 10 seconds. |
| | •Engine warm-up | Ensures engine is ready to assume the load, setpoint approximately 10 seconds. |
| | •Engine cool-down | Allows engine to cool prior to shutdown, setpoint approximately 1 minute. |
| | •Seven day exerciser | Operates engine to prevent oil seal drying and damage between power outages. |
| | •Timed Trickle Battery charger | Maintains battery amperage to insure starting. |
| | •Main Line Circuit Breaker | Protects generator from overload. |
| UNIT | •Weather protective enclosure | Ensures protection against mother nature. Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability. |
| | •Enclosed critical grade muffler | Quiet, critical grade muffler is mounted inside the unit to prevent injuries. |
| | •Small, compact, attractive | Makes for an easy, eye appealing installation. |
| **INSTALLATION SYSTEM** | •Pre-wired External Connection Box<br>•1' Flexible Fuel Line<br>•Composite Mounting Pad<br>•Pre-wired conduits<br>•UL Listed wire nuts | Easy Installation - Virtually all hardware included, plus step-by-step photographed Installation Guide. |

# Home Standby - 7kW - 10kW - 13kW

| GENERATOR | Model ASPBS1CCA007 (7kW) | Model ASPBS1CCA010 (10kW) | Model ASPBS1CCA013 (13kW) |
|---|---|---|---|
| Rated Maximum Continuous Power Capacity (LP) | 7,000 Watts* | 10,000 Watts* | 13,000 Watts* |
| Rated Maximum Continuous Power Capacity (NG) | 6,000 Watts* | 9,000 Watts* | 13,000 Watts* |
| Rated Voltage | 120/240 | 120/240 | 120/240 |
| Rated Maximum Continuous Load Current | | | |
| 120 Volts | 58.3 LP/50.0 NG | 83.3 LP/75.0 NG | 108.3 LP/108.3 NG |
| 240 Volts | 29.2 LP/25.0 NG | 41.7 LP/37.5 NG | 54.1 LP/54.1 NG |
| Main Line Circuit Breaker | 30 Amp | 45 Amp | 55 Amp |
| Phase | 1 | 1 | 1 |
| Number of Rotor Poles | 2 | 2 | 2 |
| Rated AC Frequency | 60Hz | 60Hz | 60Hz |
| Power Factor | 1 | 1 | 1 |
| Battery Requirement (not included) | Group 26 12 Volts and 350 Cold-cranking Amperes Minimum | Group 26 12 Volts and 525 Cold-cranking Amperes Minimum | Group 26 12 Volts and 525 Cold-cranking Amperes Minimum |
| Unit Weight | 336 Pounds | 375 Pounds | 426 Pounds |
| Dimensions (L" x W" x H") | 48 x 24 x 28-1/4 | 48 x 24 x 28-1/4 | 48 x 24 x 28-1/4 |
| Sound output in dB(A) at 23 ft. with generator operating at full load | 68 | 70.5 | 71.5 |

| ENGINE | Model ASPBS1CCA007 (7kW) | Model ASPBS1CCA010 (10kW) | Model ASPBS1CCA013 (13kW) |
|---|---|---|---|
| Type of Engine | OHVI | OHVI V-TWIN | OHVI V-TWIN |
| Number of Cylinders | 1 | 2 | 2 |
| Rated Horsepower | 14.5 @ 3,600 rpm | 18 @ 3,600 rpm | 30 @ 3,600 rpm |
| Displacement | 410cc | 530cc | 992cc |
| Cylinder Block | Aluminum w/Cast Iron Sleeve | Aluminum w/Cast Iron Sleeve | Aluminum w/Cast Iron Sleeve |
| Valve Arrangement | Overhead Valve | Overhead Valve | Overhead Valve |
| Ignition System | Solid-state w/Magneto | Solid-state w/Magneto | Solid-state w/Magneto |
| Governor System | Mechanical | Electronic | Electronic |
| Compression Ratio | 8.6:1 | 9.5:1 | 9.5:1 |
| Starter | 12 Vdc | 12 Vdc | 12Vdc |
| Oil Capacity Including Filter | Approx. 1.5 Qts | Approx. 1.7 Qts. | Approx. 1.7 Qts. |
| Operating RPM | 3,600 | 3,600 | 3,600 |
| Fuel Consumption | | | |
| Natural Gas ....cu.ft./hr. | | | |
| ....1/2 Load | 66 | 102 | 156 |
| ....Full Load | 119 | 156 | 220 |
| Liquid Propane....$ft^3$/hr (gal/hr) | | | |
| ....1/2 Load | 30 (0.82) | 46 (1.25) | 57 (1.55) |
| ....Full Load | 54 (1.47) | 70 (1.93) | 80 (2.18) |

Required fuel pressure to generator fuel inlet at all load ranges - 5 to 7 inches of water column for natural gas, 10 to 12 inches of water column for LP gas

| CONTROLS | |
|---|---|
| Mode Switch | |
| -Auto | Automatic Start on Utility failure 7 day exerciser |
| -Off | Stops unit. Power is removed Control and charger still operate |
| -Manual/Test (start) | Start with starter control, unit stays on. If utility fails, transfer to load takes place. |
| Engine Start Sequence | Cyclic cranking: 7 sec. on, 7 rest (90 sec. maximum duration) |
| Engine Warm-up | 10 seconds |
| Engine Cool-Down | 1 minute |
| Starter Lock-out | Starter cannot re-engage until 5 sec. after engine has stopped. |
| 2.5 Amp Timed Trickle Battery Charger | Standard |
| Automatic Voltage Regulator w/Overvoltage Protection | Standard |
| Automatic Low Oil Pressure Shutdown | Standard |
| Overspeed Shutdown | Standard, 72Hz |
| High Temperature Shutdown | Standard |
| Overcrank Protection | Standard |
| Safety Fuse | Standard |

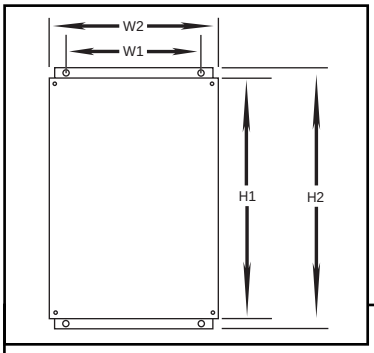
Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). * Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level; and also will decrease about 1 percent for each 12° C (10° F) above 15.5° C (60°F).

# Home Standby - 7kW - 10kW - 13kW

| TRANSFER SWITCH & EMERGENCY LOAD CENTER | Model ASPBS1CCA007 (7kW) | Model ASPBS1CCA010 (10kW) | Model ASPBS1CCA010 (13kW) |
|---|---|---|---|
| No. of Poles | 2 | 2 | 2 |
| Current Rating (amps | 100 | 100 | 100 |
| Voltage Rating (VAC) | 250 | 250 | 250 |
| Utility Voltage Monitor (fixed) | | | |
| *-Pick-up* | 70% | 70% | 70% |
| *-Dropout* | 60% | 60% | 60% |
| Return to Utility | approx. 13 sec. | approx. 13 sec. | approx. 13 sec. |
| Exerciser weekly for 12 minutes | Standard | Standard | Standard |
| UL Listed | Standard | Standard | Standard |
| Dimensions (H" x W" x D") | 26.5 x 12.5 x 7 | 26.5 x 12.5 x 7 | 26.5 x 12.5 x 7 |
| Total of Pre-wired Circuits | 8 | 10 | 12 |
| No. 15A 120V | 5 | 3 | 5 |
| No. 20A 120V | 1 | 3 | 3 |
| No. 20A 240V | - | 1 | - |
| No. 30A 240V | 1 | 1 | 1 |
| No. 40A 240V | - | - | 1 |
| Circuit Breaker Protected Available RMS Symmetrical Fault Current @ 250 Volts | 10,000 | 10,000 | 10,000 |

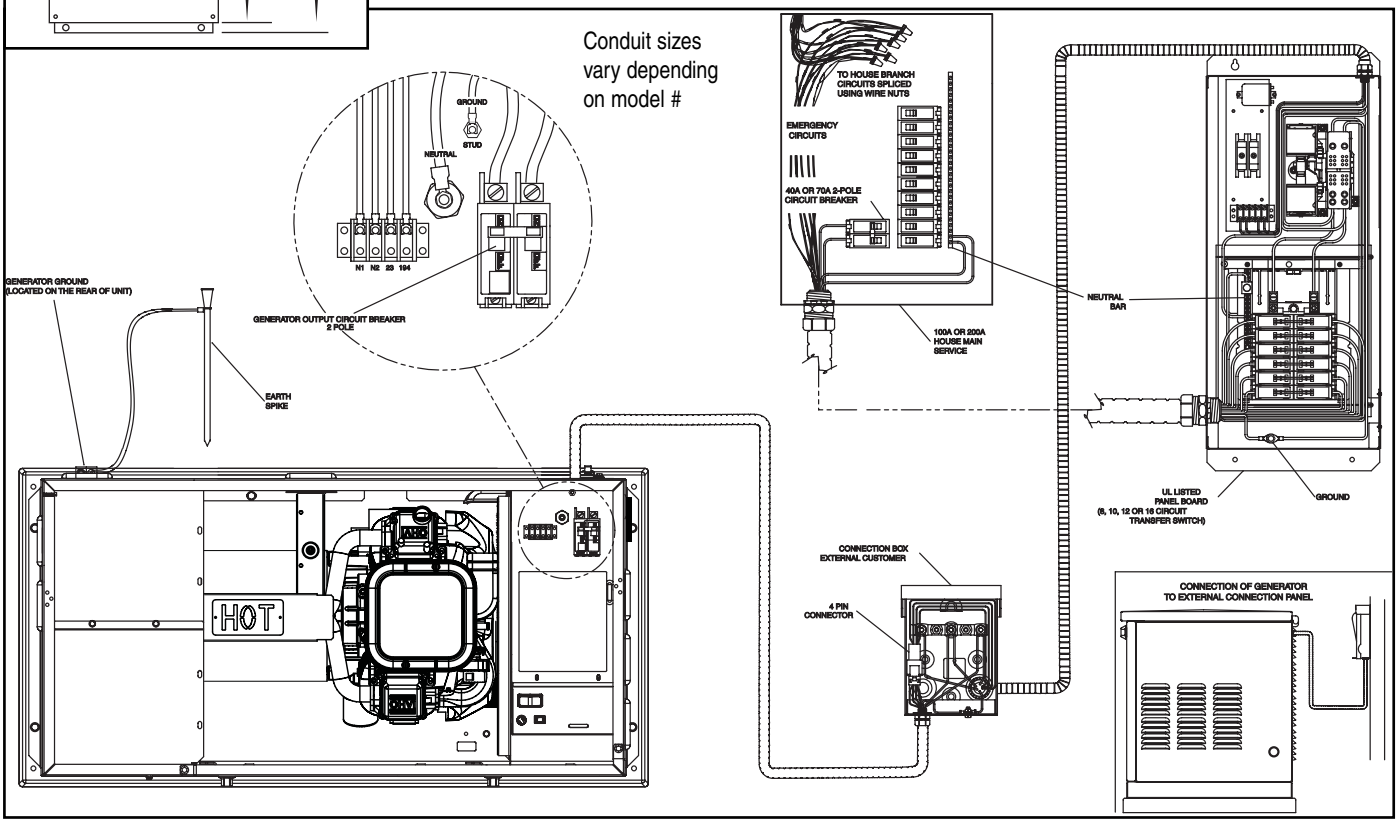
## Transfer Switch Features

- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2 pole, 250 VAC contactors.
- 160 millisecond transfer time.
- Dual coil design.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- Nema 1 enclosure is standard on the 100 amp switch.




| Mechanical Dimensions (in inches) | | | | | | |
|---|---|---|---|---|---|---|
| Current Rating | No. of Poles | Height H1 | Height H2 | Width W1 | Width W2 | Depth |
| 100 UL Listed | 2 | 26.5 | 29.25 | 8.14 | 12.5 | 7 |

| Terminal Wire Ranges | | | |
|---|---|---|---|
| ATS Rated Amps | Switch Terminal | Neutral Lug/Stud | Ground Lug |
| 100A 2-Pole UL | 1 x 1/0-12 | 1 x 3/8-16 Stud | 1 x 2/0-14 |


Conduit sizes vary depending on model #
GROUND
STUD
NEUTRAL
N1 N2 23 194
GENERATOR OUTPUT CIRCUIT BREAKER 2 POLE
GENERATOR GROUND (LOCATED ON THE REAR OF UNIT)
EARTH SPIKE
HOT
TO HOUSE BRANCH CIRCUITS SPLICED USING WIRE NUTS
EMERGENCY CIRCUITS
40A OR 70A 2-POLE CIRCUIT BREAKER
100A OR 200A HOUSE MAIN SERVICE
NEUTRAL BAR
GROUND
UL LISTED PANEL BOARD (6, 10, 12 OR 16 CIRCUIT TRANSFER SWITCH)
CONNECTION BOX EXTERNAL CUSTOMER
4 PIN CONNECTOR
CONNECTION OF GENERATOR TO EXTERNAL CONNECTION PANEL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